Food Safety And Inspection Service Technical Service Center

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AUDIT REPORT FOR BRAZILJULY 11 THROUGH AUGUST 3, 2001

INTRODUCTION

Background

This report reflects information that was obtained during an audit of Brazil's meat inspection system from July 11 through August 3, 2001. Nine of the 28 establishments certified to export meat to the United States were audited. Six of these were slaughter establishments, two were conducting processing operations and one was a cold storage facility.

The last audit of the Brazilian meat inspection system was conducted in June 2000. Nine establishments were audited: eight were acceptable (1651, 42, 3031, 862, 337, 226, 736, and 412), and one was unacceptable (458). One major concern was reported at that time. HACCP implementation was inadequate in Establishment 458.

Any meat products from Brazil (all species) must be cooked, including shelf stable canned product.

During calendar year 2001, Brazilian establishments exported nearly 42 million pounds of beef to the U.S. Port-of-entry (POE) rejections were for microbiological contamination (0.32% of the total), unsound condition (0.13%), composition/standard (0.17%) and transportation damage and missing shipping marks (0.02% combined).

PROTOCOL

This on-site audit was conducted in four parts. One part involved visits with the Brazilian National Meat Inspection Officials to discuss oversight programs and practices, including enforcement activities. The second entailed an audit of a selection of records in the meat inspection headquarters facilities preceding the on-site visits. The third was conducted by on-site visits to establishments. The selection of the establishments for these audits was based on the examination of the import station records, the results of the previous audit, and randomly. The fourth part was a visit to two laboratories, one performing analytical testing of field samples for the national residue testing program, and the other culturing field samples for the presence of microbiological contamination with *Salmonella*.

Brazil's program effectiveness was assessed by evaluating five areas of risk: (1) sanitation controls, including the implementation and operation of Sanitation Standard Operating Procedures (SSOPs), (2) animal disease controls, (3) residue controls, (4) slaughter/processing controls, including the implementation and operation of Hazard Analysis and Critical Control Point (HACCP) systems and the *E. coli* testing program, and (5) enforcement controls, including the testing program for *Salmonella* species.

During all on-site establishment visits, the auditor evaluated the nature, extent, and degree to which findings impacted on food safety and public health, as well as overall program delivery. The auditor also determined if establishment and inspection system controls were in place. Establishments that do not have effective controls in place to prevent, detect and eliminate product contamination/adulteration are considered unacceptable and therefore ineligible to export products to the U.S., and are delisted accordingly by the country's meat inspection officials.

RESULTS AND DISCUSSION

Summary

Effective inspection system controls were found to be in place in six of the nine establishments audited; three (4507, 458 and 504) of these were recommended for re-review. Details of audit findings, including compliance with HACCP, SSOPs, and testing programs for *Salmonella* and generic *E. coli*, are discussed later in this report.

As stated above, one major concern had been identified during the last audit of the Brazilian meat inspection system, conducted in June 2000. This concern dealt with HACCP implementation that was inadequate in Establishment 458. During this new audit, the auditor determined that the concern had been addressed and corrected.

HACCP-implementation deficiencies were found in six of the nine establishments visited (2979, 4507, 458, 504, 1662 and 385). Details are provided in the HACCP-implementation section later in this report.

Entrance Meeting

On July 20, an entrance meeting was held in the Brasilia offices of the Divisao do Comercio Internacional/Departamento de Inspecao de Productos de Origem Animal (DCI/DIPOA), and was attended by: Dr. Marcello Mazzini, Chief of DCI/DIPOA; Dr. Andreia Galvao, DCI/DIPOA; Dr. Ari Anjos, DCI/DIPOA; Ms. Conceicao Souza, CLA/DIPOA; Mr. Joao Silva, Agriculture Specialist, U.S. Embassy; and Dr. M. Douglas Parks, International Audit Staff Officer, FSIS/USDA.

Topics of discussion included the following:

- 1. Establishments to be visited and the itinerary of the audit.
- 2. Establishments for records only audits in Brasilia.
- 3. Laboratories and the farm to be visited.
- 4. Information to be supplied about National Residue Testing Program, Species Testing and the Enforcement and Compliance Program.
- 5. The Salmonella problem in product from Establishment 458.
- 6. The feeding of ruminant protein back to ruminants.

Headquarters Audit

There had been no changes in the organizational structure or upper levels of inspection staffing since the last U.S. audit of Brazil's inspection system in June 2000.

To gain an accurate overview of the effectiveness of inspection controls, FSIS requested that the inspection officials who normally conduct the periodic reviews for compliance with U.S. specifications lead the audits of the individual establishments. The FSIS auditor (hereinafter called "the auditor") observed and evaluated the process.

The auditor conducted a review of inspection system documents pertaining to the establishments listed for records review. This records review was conducted at the headquarters of the inspection service. The records review focused primarily on food safety hazards and included the following:

- Internal review reports.
- Supervisory visits to establishments that were certified to export to the U.S.
- Training records for inspectors and laboratory personnel.
- Label approval records such as generic labels, and animal raising claims.
- New laws and implementation documents such as regulations, notices, directives and guidelines.
- Sampling and laboratory analyses for residues.
- Pathogen reduction and other food safety initiatives such as SSOPs, HACCP programs, generic *E. coli* testing and *Salmonella* testing.
- Sanitation, slaughter and processing inspection procedures and standards.
- Control of products from livestock with conditions such as tuberculosis, cysticercosis, etc., and of inedible and condemned materials.
- Export product inspection and control including export certificates.

 Enforcement records, including examples of criminal prosecution, consumer complaints, recalls, seizure and control of noncompliant product, and withholding, suspending, withdrawing inspection services from or delisting an establishment that is certified to export product to the United States.

The following concerns arose as a result of the examination of these documents:

1. In-depth knowledge of HACCP is lacking in most establishments, e.g., Critical Control Point (CCP) selection, setting limits for CCP's, recording of preventive action, and pre-shipment review.

Government Oversight

All inspection veterinarians and inspectors in establishments certified by Brazil as eligible to export meat products to the United States were full-time DIPOA employees, receiving no remuneration from either industry or establishment personnel.

Establishment Audits

Twenty-eight establishments were certified to export meat products to the United States at the time this audit was conducted. Nine establishments were visited for on-site audits. In six of the nine establishments visited, both DIPOA inspection system controls and establishment system controls were in place to prevent, detect and control contamination and adulteration of products. In three of the establishments serious deficiencies were observed that resulted in their placement in the acceptable/re-review category. These deficiencies are discussed later in this report.

Laboratory Audits

During the laboratory audits, emphasis was placed on the application of procedures and standards that were equivalent to U.S. requirements. Information was also collected about the risk areas of government oversight of accredited, approved, and private laboratories, intra-laboratory quality assurance procedures, including sample handling, and methodology.

The Laboratorio Regional de Apoio Animal (LARA) in Campinas was audited on July 25, 2001. Effective controls were in place for sample handling and frequency, timely analysis, data reporting, tissue matrices for analysis, equipment operation and printouts, minimum detection levels, recovery frequency, percent recoveries, and corrective actions. The methods used for the analyses were acceptable. No compositing of samples was done. The check sample program did meet FSIS requirements. This laboratory has responsibilities in the residue testing program as well as the *E. coli* and *Salmonella* testing programs.

Some of Brazil's microbiological testing was being performed in private laboratories. One of these, the Microbiotics Analises Laboratoriais in Sao Paulo was audited on July 27, 2001. The auditor determined that the system met the criteria established for the use of private laboratories.

These criteria are:

- 1. The laboratories have been accredited/approved by the government, accredited by third party accrediting organization with oversight by the government, or a government contract laboratory.
- 2. The laboratories have properly trained personnel, suitable facilities and equipment, a written quality assurance program, and reporting and record-keeping capabilities.
- 3. Results of analyses are being reported to the government or simultaneously to the government and establishment.

Establishment Operations by Establishment Number

The following operations were being conducted in the nine establishments:

Beef slaughter and boning - five establishments (2979, 4507, 3181, 1662 and 504) Beef slaughter, boning, canning and cooked frozen beef (385) Beef canning and cooked frozen beef (458) Beef processing (jerky) (3673) Cold storage (no processing) (785)

SANITATION CONTROLS

Based on the on-site audits of establishments, Brazil's inspection system had controls in place for basic establishment facilities, condition of facilities and equipment, product protection and handling and the establishment sanitation program. There was one area of concern in establishment 504. Carcasses with contaminated condensate on them were being sent to the boning room without overall trimming.

Sanitation Standard Operating Procedures (SSOPs)

Each establishment was evaluated to determine if the basic FSIS regulatory requirements for SSOPs were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment A).

The SSOPs were found to meet the basic FSIS regulatory requirements, with only occasional minor variations, except in Establishment 3673 where production start was delayed because of sanitation problems discovered on pre-operational sanitation inspection. No records of the problems or corrective action were found.

Cross-Contamination

- 1. Over-spray above the carcass wash was falling from the contaminated rail onto the carcasses in two establishments (2979 and 1662).
- 2. The moving viscera table was coming up with residues from the previous use in three establishments (2979, 1662 and 385).
- 3. The employee, who was cutting across the anus, continued the cut into other tissues without sanitizing the knife in two establishments (1662 and 4507).
- 4. The buccal cavity was opened before the mouth cavity was washed resulting in possible contamination of exposed product with ingesta in establishment 785.

All of these sanitation problems were corrected immediately by company personnel.

Product Handling and Storage

Meat products and non-meat ingredients were found to be stored under sanitary conditions in all establishments.

Personnel Hygiene and Practices

These practices were found to be acceptable in all establishments.

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ANIMAL DISEASE CONTROLS

Brazil's inspection system had controls in place to ensure adequate animal identification, ante-mortem and post-mortem inspection procedures and dispositions, condemned and restricted product control, and procedures for sanitary handling of returned and rework product.

There were reported to have been no outbreaks of animal diseases with public-health significance since the previous U.S. audit.

RESIDUE CONTROLS

Brazil's National Residue Testing Plan for 2001 was being followed, and was on schedule. The Brazilian inspection system had adequate controls in place to ensure compliance with sampling, reporting procedures, and the storage and use of chemicals.

A farm was visited on July 20, 2001. The only problem noted was that calf treatment medication was in stock that contained chloramphenicol. The manager stated that it was used for calf scours in baby calves and that no calves were ever sold until they were at least a year old.

SLAUGHTER/PROCESSING CONTROLS

Except as noted below, the Brazilian inspection system had controls in place to ensure adequate ante-and post-mortem inspection procedures and dispositions, control and disposition of dead, dying, diseased or disabled animals, humane handling and slaughter.

1. It was observed in one establishment (4507) that all animals were being hit with the captive bolt stunner at least two times. The operations were stopped and the operator was instructed in the correct procedure by the company supervisor.

HACCP Implementation

All establishments approved to export meat products to the U.S. are required to have developed and implemented a Hazard Analysis – Critical Control Point (HACCP) system. Each of these systems was evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment B).

With the following exceptions, the HACCP programs were found to meet the basic FSIS regulatory requirements.

- 1. There were problems seen in HACCP implementation.
 - a) Critical limits that were set were not measurable in four establishments (2979, 4507, 458 and 3673).
 - b) Pre-shipment reviews were not done in six establishments (2979, 4507, 458, 504, 1662 and 385).
- 2. In-depth knowledge of HACCP is lacking in most establishments, e.g. Critical Control Point (CCP) selection, setting limits for CCP's, recording of preventive action, and preshipment review.

Testing for Generic E. coli

Brazil has adopted the FSIS regulatory requirements for generic E. coli testing.

Six of the establishments audited were required to meet the basic FSIS regulatory requirements for generic *E. coli* testing, and were audited and evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment C).

The *E. coli* testing programs were found to meet the basic FSIS regulatory requirements.

Additionally, establishments had adequate controls in place to prevent meat products intended for Brazilian domestic consumption from being commingled with products eligible for export to the U.S.

ENFORCEMENT CONTROLS

Inspection System Controls

The DIPOA inspection system controls restricted product and inspection samples, boneless meat re-inspection, shipment security, including shipment between establishments, prevention of commingling of product intended for export to the United States with domestic product, monitoring and verification of establishment programs and controls (including the taking and documentation of corrective actions under HACCP plans), inspection supervision and documentation, the importation of only eligible livestock or poultry from other countries (i.e., only from eligible countries and certified establishments within those countries, and the importation of only eligible meat or poultry products from other counties for further processing) were in place and effective in ensuring that products produced by the establishment were wholesome, unadulterated, and properly labeled. In addition, adequate controls were found to be in place for security items, shipment security, and products entering the establishments from outside sources.

The laws of Brazil do not provide for convicted felons (meat law violators) to be barred from further involvement in the meat industry.

Testing for Salmonella Species

Six of the establishments audited were required to meet the basic FSIS regulatory requirements for *Salmonella* testing, and were evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment D).

Brazil has adopted the FSIS regulatory requirements for *Salmonella* testing with exception of the following equivalent measures:

- 1. The establishment takes the sample but always under inspection supervision.
- 2. The samples are analyzed in private accredited laboratories.
- 3. The enforcement strategy is similar but after one positive the plant is removed from U.S. export list and must reassess the HACCP plan and meet the performance standards.

Species Verification Testing

At the time of this audit, Brazil was not exempt from the species verification-testing requirement. The auditor verified that species verification testing was being conducted in accordance with FSIS requirements.

Monthly Reviews

These reviews were being performed by the Brazilian equivalent of Circuit Supervisors. All were veterinarians with many years of experience. Dr. Ari Crispim dos Anjos was in charge of the U.S. export establishments.

The internal review program was applied equally to both export and non-export establishments. Internal review visits were not always announced in advance and were conducted at times by individuals and at other times by a team of reviewers. For U.S. certified establishments, these reviews are not on a monthly basis. An auditor from Brasilia visits two times a year and an auditor from the State (district) Office visits four times a year. The records of audited establishments were kept in the inspection offices of the individual establishments, and copies were also kept in the central DIPOA offices in Brasilia.

In the event that an establishment is found, during one of these internal reviews, to be out of compliance with U.S. requirements, and is delisted for U.S. export, before it may again qualify for eligibility to be reinstated, a team is empowered to conduct an in-depth review, and the results are reported to Dr. Ari for evaluation; they formulate a plan for corrective actions and preventive measures.

Enforcement Activities

The enforcement activities of meat establishments producing beef during the year of 2000 and January through June 2001 are as follows: 155 violations which resulted in 62 warnings and 79 penalties (fines), with a total value of 282,100 UFIRS (US\$121,303).

Exit Meetings

An exit meeting was conducted in Brasilia on August 3, 2001. The participants were: Dr. Rui Vargas, Director DCI/DIPOA; Dr. Marcello Mazzini, Chief DCI/DIPOA; Dr. Ari Andros, DCI/DIPOA; Dr. Andreia Galvao, DCI/DIPOA; Ms. Milene Ce, DCI/DIPOA; Mr. William Westman, Agricultural Counselor, U.S. Embassy; Mr. Joao Silva, Agriculture Specialist, U.S. Embassy; and Dr. M. Douglas Parks, International Audit Staff Officer, FSIS/USDA. The following topics were discussed:

- 1. The FSIS Residue Questionnaire response was received.
- 2. The *Salmonella* situation in Establishment 458 was discussed. On more than one occasion, *Salmonella* was found in cooked frozen product samples at the import station in the U.S.

An investigation by the establishment revealed that the hydraulic oil was contaminated with *Salmonella* and was leaking from a cooked product press onto the exposed product.

The oil was changed to a USDA approved edible oil and everything was disinfected. A daily microbiological test was to be done on the oil, the product, and the machine to assure that the problem had been solved. This was to be done for two weeks before shipments are resumed to the U.S. This was to be monitored by DIPOA Officials to ensure compliance. A report will be sent to FSIS as soon as the testing is complete.

- 3. Documentation of the past year's enforcement activities was asked for but not received.
- 4. The problems with HACCP implementation were discussed and assurances were given that increased training in this area would be started immediately.
- 5. The policy was explained that establishments that are rated less than acceptable at this time must be acceptable at the next audit or they would be removed from the eligibility list.
- 6. The failure of Establishment 471 officials to show up in Brasilia for a records audit was discussed and the reason given was failure of the State Office to notify the establishment of the audit. It was proposed that Dr. Ari would go to the establishment and conduct an on-site audit within the next two weeks and send a report to FSIS. This proposal was accepted by all parties.
- 7. Monthly visits to U.S. certified establishments by DIPOA personnel to verify compliance with U.S. rules was discussed and the U.S. requirement of a visit each month was made clear. Brazil is not complying with this requirement.

CONCLUSION

The inspection system of Brazil was found to have effective controls to ensure that product destined for export to the United States was produced under conditions equivalent to those which FSIS requires in domestic establishments. Nine establishments were audited: six were acceptable, three were evaluated as acceptable/re-review. The deficiencies encountered during the on-site establishment audits in those establishments which were found to be acceptable and acceptable/re-review were adequately addressed to the auditor's satisfaction.

Dr. M. Douglas Parks International Audit Staff Officer (signed) Dr. M. Douglas Parks

ATTACHMENTS

- A. Data collection instrument for SSOPs
- B. Data collection instrument for HACCP programs
- C. Data collection instrument for E. coli testing
- D. Data collection instrument for Salmonella testing
- E. Laboratory Audit Forms
- F. Individual Foreign Establishment Audit Forms
- G. Written Foreign Country's Response to the Draft Final Audit Report

Data Collection Instrument for SSOPs

Each establishment was evaluated to determine if the basic FSIS regulatory requirements for SSOPs were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument contained the following statements:

- 1. The establishment has a written SSOP program.
- 2. The procedure addresses pre-operational sanitation.
- 3. The procedure addresses operational sanitation.
- 4. The pre-operational procedures address (at a minimum) the cleaning of food-contact surfaces of facilities, equipment, and utensils.
- 5. The procedure indicates the frequency of the tasks.
- 6. The procedure identifies the individuals responsible for implementing and maintaining the activities.
- 7. The records of these procedures and any corrective action taken are being maintained on a daily basis.
- 8. The procedure is dated and signed by the person with overall on-site authority.

The results of these evaluations were as follows:

	1.Written program	2. Pre-op sanitation	3. Oper. sanitation	4. Contact surfaces	5. Frequency	6. Responsible indiv.	7. Docu- mentation	8. Dated and signed
Est. #	addressed	addressed	addressed	addressed	addressed	identified	done daily	
2979	V	V	$\sqrt{}$	$\sqrt{}$	V	V	V	$\sqrt{}$
4507	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	\checkmark	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
785	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	\checkmark	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
3181	V	V	$\sqrt{}$	$\sqrt{}$	V	V	V	$\sqrt{}$
458	V	V		$\sqrt{}$	V	V	V	V
504	V	V	$\sqrt{}$	$\sqrt{}$	V	V	V	$\sqrt{}$
1662	V	V	$\sqrt{}$	$\sqrt{}$	V	V	V	$\sqrt{}$
385	V	V	$\sqrt{}$	$\sqrt{}$	V	V	V	$\sqrt{}$
3673	V	V	V	V	V	V	no	no

Documentation was also audited from the following establishments that were not visited onsite, during the centralized document audit:

337	V	V		V	V	V	V	
76	V			V	V	V	V	\checkmark
2023	V	V	no	V	V	V	V	√
421	V	V	√	V	V	V	V	\checkmark
1793	V	V		n/a	V	no	V	no
2427	V	no		n/a	V	no	V	no
2909	V	V		n/a	V	V	V	
3155	V	V		n/a	V	no	no	
226	V	V		V	V	V	V	no
471	Did	not	show	for	audit			

Data Collection Instrument for HACCP Programs

Each of the establishments approved to export meat products to the U.S. (except Est. 785, which was a cold-storage facility) was required to have developed and implemented a Hazard Analysis – Critical Control Point (HACCP) system. Each of these systems was evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument included the following statements:

- 1. The establishment has a flow chart that describes the process steps and product flow.
- 2. The establishment has conducted a hazard analysis that includes food safety hazards likely to occur.
- 3. The analysis includes the intended use of or the consumers of the finished product(s).
- 4. There is a written HACCP plan for each product where the hazard analysis revealed one or more food safety hazard(s) reasonably likely to occur.
- 5. All hazards identified in the analysis are included in the HACCP plan; the plan lists a CCP for each food safety hazard identified.
- 6. The HACCP plan specifies critical limits, monitoring procedures, and the monitoring frequency performed for each CCP.
- 7. The plan describes corrective actions taken when a critical limit is exceeded.
- 8. The HACCP plan was validated using multiple monitoring results.
- 9. The HACCP plan lists the establishment's procedures to verify that the plan is being effectively implemented and functioning and the frequency for these procedures.
- 10. The HACCP plan's record-keeping system documents the monitoring of CCPs and/or includes records with actual values and observations.
- 11. The HACCP plan is dated and signed by a responsible establishment official.
- 12. The establishment is performing routine pre-shipment document reviews.

The results of these evaluations were as follows:

	1. Flow diagram	2. Haz- ard an-	3. Use & users	4. Plan for each	5. CCPs for all	6. Mon- itoring	7. Corr. actions	8. Plan valida-	9. Ade- quate	10.Ade- quate	11. Dat- ed and	12.Pre- shipmt.
Est.#		alysis conduct -ed	includ- ed	hazard	hazards	is spec- ified	are des- cribed	ted	verific. proced- ures	docu- menta- tion	signed	doc. review
2979	√	√	√	V	√	no	√	√	√	√	√	no
4507	√	V	√	√	√	no	no	√	√	√	\checkmark	no
785	cold	storage	only									
3181	$\sqrt{}$	√	√	V	V	√	\checkmark	√	\checkmark	√	√	$\sqrt{}$
458	√	√	√	√	√	no		√	√	√	√	no
504	√	√	√	√	√	√	√	√	√	√	√	no
1662	√	V	√	V	V	√	√	V	√	√	√	no
385		V	V	V		V	$\sqrt{}$	V			$\sqrt{}$	no
3673	$\sqrt{}$	V	V	V	√	no	$\sqrt{}$	√	\checkmark	√	$\sqrt{}$	$\sqrt{}$

Documentation was also audited from the following establishments that were not visited on-site, during the centralized document audit:

337	√	V	V	V	√	√	V	V	V	√	V	V
76	√	V	√	√	√	no	√	√	V	no	V	no
2023	√	√	√	√	√	√	no	√	√	√	√	no
421	√	V	V	√	√	no	√	no	V	√	V	no
1793	cold	storage	only									
2427	cold	storage	only									
2909	cold	storage	only									
3155	cold	storage	only									
226	√	V	V	V	V	no	√	V	V	no	V	V
471	did	not	show	for	audit							

Data Collection Instrument for Generic E. coli Testing

Each establishment (except Est. 785, which was a cold-storage facility and Est. 458 and 3673, which were processing only) was evaluated to determine if the basic FSIS regulatory requirements for generic *E. coli* testing were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument contained the following statements:

- 1. The establishment has a written procedure for testing for generic E. coli.
- 2. The procedure designates the employee(s) responsible to collect the samples.
- 3. The procedure designates the establishment location for sample collecting.
- 4. The sample collection is done on the predominant species being slaughtered.
- 5. The sampling is done at the frequency specified in the procedure.
- 6. The proper carcass site(s) and/or collection methodology (sponge or excision) is/are being used for sampling.
- 7. The carcass selection is following the random method specified in the procedure or is being taken randomly.
- 8. The laboratory is analyzing the sample using an AOAC Official Method or an equivalent method.
- 9. The results of the tests are being recorded on a process control chart showing the most recent test results.
- 10. The test results are being maintained for at least 12 months.

	1.Writ-	2. Samp-	3.Samp-	4. Pre-	5. Samp-	6. Pro-	7. Samp-	8. Using	9. Chart	10. Re-
	ten pro-	ler des-	ling lo-	domin.	ling at	per site	ling is	AOAC	or graph	sults are
Est. #	cedure	ignated	cation	species	the req'd	or	random	method	of	kept at
			given	sampled	freq.	method			results	least 1 yr
2979	ran	out	of	time						
4507			\checkmark	\checkmark	\checkmark	\checkmark		\checkmark		$\sqrt{}$
785	cold	storage	only							
3181			\checkmark	\checkmark	\checkmark	\checkmark		\checkmark		$\sqrt{}$
1662			\checkmark	\checkmark	\checkmark	\checkmark		\checkmark		$\sqrt{}$
458	proce-	ssing	only							
504		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		$\sqrt{}$		$\sqrt{}$
385		V	V	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	V	V		V
3673	proce-	ssing	only							

Documentation was also audited from the following establishments that were not visited onsite, during the centralized document audit:

337	V	V	V	V	$\sqrt{}$	V	V	V	√	V
76	proce-	ssing	only							
2023	proce-	ssing	only							
421	V									
1793	cold	storage	only							
2427	cold	storage	only							
2909	cold	storage	only							
3155	cold	storage	only							
226	proce-	ssing	only							
471	did	not	show	for	audit					

Data Collection Instrument for Salmonella testing

Each slaughter establishment was evaluated to determine if the basic FSIS regulatory requirements for *Salmonella* testing were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument included the following statements:

- 1. Salmonella testing is being done in this establishment.
- 2. Carcasses are being sampled.
- 3. Ground product is being sampled.
- 4. The samples are being taken randomly.
- 5. The proper carcass site(s) and/or collection of proper product (carcass or ground) is being used for sampling.
- 6. Establishments in violation are not being allowed to continue operations.

The results of these evaluations were as follows:

	1. Testing	2. Carcasses	3. Ground	4. Samples	5. Proper site	6. Violative
Est. #	as required	are sampled	product is	are taken	and/or	est's stop
			sampled	randomly	proper prod.	operations
2979	not	enough	time			
4507	$\sqrt{}$	$\sqrt{}$	N/A	$\sqrt{}$	$\sqrt{}$	\checkmark
785	cold	storage	only			
3181	$\sqrt{}$	$\sqrt{}$	N/A	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
458	processing	only				
504	$\sqrt{}$	$\sqrt{}$	N/A	$\sqrt{}$	$\sqrt{}$	\checkmark
1662	$\sqrt{}$	$\sqrt{}$	N/A	$\sqrt{}$	$\sqrt{}$	\checkmark
385	V	V	N/A	V	V	V
3673	processing	only				

Documentation was also audited from the following establishments that were not visited onsite, during the centralized document audit:

337	√	√	N/A	V	√	√
76	processing	only				
2023	processing	only				
421	$\sqrt{}$		N/A	$\sqrt{}$		$\sqrt{}$
1793	cold	storage	only			
2427	cold	storage	only			
2909	cold	storage	only			
3155	cold	storage	only			
226	processing	only		_		
471	did	not	show	for	audit	